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10/008,806	11/13/2001	Linwood Anderson	20264-502	5652

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EXAMINER

MAI, NGOCLAN THI

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,806

Applicant(s)

ANDERSON, LINWOOD

Examiner

Ngoclan T. Mai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10-16-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 is/are allowed.
- 6) ☒ Claim(s) 31,33-37 and 41-45 is/are rejected.
- 7) ☒ Claim(s) 38-40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. Claims 31, 33-35 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10156607 A.

JP 10156607 discloses a cemented carbide alloy for use as cutting blade having transverse rupture strength about 250 kg/m^2 (~355,583 psi) and hardness H_{RA} of about 94.6. The cemented carbide is of WC and cobalt binder containing 0.3 to 3% by weight. While JP 10156607 does not specify that the Rockwell A hardness is measured at 20 degrees centigrade, it is well known or conventional that Rockwell A hardness is typically measured at room temperature which is about 20 C (see Stoll et al. col. 9, lines 1-2). The Rockwell A hardness of the cemented carbide alloy taught by JP 10156607 A would inherently be measured at 20 C.

With regard to the Rockwell A- Scale hardness measured at 800 degree Centigrade in claim 33-35, the cemented carbide alloy taught by the patent would inherently have the claimed hardness at that temperature since it is the same material where Rockwell A-Scale hardness is measured at different temperature.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 36-37 and 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10156607 A in view of Kammermeier et al.

JP 10156607 A teaches the claimed ceramic body having Co binder in the amount of 0.3 to 3% by weight (this means that WC is from 97-99.7 %wt)

While JP 10156607 does not teach Co having the claimed ranges, the body taught contains Co whose wt% ranges overlap those recited by the claims. It would have been obvious to one of ordinary skill in the art to select any portion of range, including the claimed range, from the broader range disclosed in JP 10156607 because JP 10156607 finds that Co in the entire disclosed range has a suitable utility. Note that such overlapping range renders applicant's composition prima facie obvious despite difference in non-overlapping areas, see In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Furthermore, in view of the overlapping in composition, the composition taught by the prior art would be expected to possess the same properties such as theoretical density as in claim 45 of applicant's claimed ceramic body. See In re Best, 195 USPQ 430.

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To distinguish over prior art, applicant needs to demonstrate (e.g. by comparative test data) that the more narrowly claimed ranges for the alloying constituents are somehow critical and productive of new and unexpected results.

With regard to the ceramic body formed in the shapes as in claims 44, it is notoriously well known in the art that cemented tungsten carbide-cobalt bodies are known for use as cutting tool in the shape insert, knife, router bit, see Kammermeier et al. Figure 4, Forming the cemented tungsten carbide-cobalt body taught by JP 10155607 into these shapes would have been obvious.

5. Claim 32 is deemed allowable because none of the prior art teach the claimed ceramic body having transverse rupture strength and hardness as claimed.

6. Claims 38-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoclan T. Mai whose telephone number is (571) 272-1246. The examiner can normally be reached on 7:30-4:00 PM Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.


Ngeclan T. Mai
Primary Examiner
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n.m.